

REMARKS

This response addresses the issues raised by the Examiner in the Office Action mailed May 26, 2004. Initially, Applicants would like to thank the Examiner for the careful consideration given in this case. The Claims were 3-8. Claim 8 has been amended to correct a typographical error. Thus, Claims 3-8 are pending in this case all to more clearly and distinctly claim Applicants' invention. Applicants respectfully request entry of the amendments as they place the application in condition for allowance or in better condition for possible appeal.

Rejection Based On Terashima Under 35 U.S.C. § 102 (b)

The Examiner rejects Claims 3-8 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent 4,900,665 to Terashima et al. Applicants respectfully traverse this rejection.

The Examiner asserts that Terashima discloses a method of producing a multilayer analytical element that comprises a water impermeable transparent support, at least one water-impermeable layer and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. The Examiner further asserts that Terashima teaches coating the surface of fiber constituting the spreading layer with an organic solvent and then supplying a reagent solution on the spreading layer. Applicants respectfully disagree.

To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP § 2143.03. Terashima discloses an integral multilayer analytical element including a porous spreading layer containing a self-developing substrate, a buffer layer and a buffering agent and a support layer. However, Terashima does not disclose, teach or suggest supplying a reagent solution on the spreading layer coated with

organic solvent. Instead, Terashima discloses applying a self-developing substrate dissolved in an organic solvent so as to not be brought in contact with the buffering agent. See Col. 8, lines 23-25. In other words, the organic solvent is not applied prior to the self-developing substrate but together with it. The self-developing substrate is applied dissolved in the organic solvent in the process of Terashima. See Col. 7, lines 50-53 and Col. 8, lines 23-25.

In contrast, the present invention claims a method of producing a dry analytical element comprising a water-impermeable transparent support, at least one water-permeable layer, and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. An organic solvent is supplied having both hydrophilic and hydrophobic characteristics onto the spreading layer to coat the surface of the polyester fibers together with the organic solvent, and then supplying a reagent solution while leaving the organic solvent on the surface. In Examples 1, 2 and 3 of the present invention, the spreading layers were coated organic solvent prior to coating a reagent ethanol solution. When Examples 1-3 were compared to the Comparative Example 1 where no organic solvent was coated on the spreading layer before the reagent ethanol solution, Examples 1-3 exhibited a smaller coefficient of variation than Comparative Example 1. See para. 0047. It was also found that the coating treatment with an organic solvent of the present invention permits a reagent to penetrate easily into the bottom of the polyester fabric and achieves uniform inclusion of the reagent in the fabric. As a result, not only the coefficient of variation can be improved by virtue of decrease of coloring unevenness, but also coloring strength is enhanced.

Terashima teaches to incorporate the self-developing substrate dissolved in an organic solvent in the spreading layer, and it is possible to mix surfactant with the self-developing substrate. See Col. 8, lines 23-29. Terashima also discloses examples of types of organic

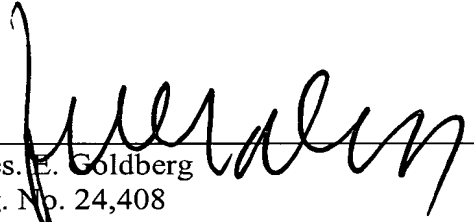
solvents used in the spreading layer. Although Applicant agrees that Terashima discloses that the organic solvent is supplied in an amount of 30 to 90% of the spreading layer by volume, Terashima does not disclose the thickness of the spreading layer. Thus, the supplied amount of coating per volume of the spreading layer cannot be calculated. Also, Terashima does even mention that the spreading layer after the organic solvent is dried until the amount of the organic solvent coating becomes 0.1 to 5 % of the supplied amount. Further, Terashima does not describe the drying conditions of the coating. Accordingly, Terashima does not disclose coating the surface of polyester fiber with an organic solvent prior to supplying a reagent solution nor teaches any advantage to doing this. Thus, Terashima does not disclose each and every claim element of the claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

In view of the remarks presented herein, it is respectfully submitted that the present application is in condition for final allowance and notice to such effect is requested. If the Examiner believes that additional issues need to be resolved before this application can be passed to issue, the undersigned invites the Examiner to contact him at the telephone number provided below.

Respectfully submitted,

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By



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